

REMARKS

STATUS OF CLAIMS

Claims 1-2, 4, 6-11, 13, 15-16, 18, 20-21, 23-24, 26, 28, 30-31, 33-34, 37, 39-40, and 42-44 are pending. By this Amendment, claims 3, 19, 22, and 35 have been cancelled. Claims 1, 11, 20, and 33 have been amended to further define the viscosity index improver. Support for these amendments can be found in original claims 3, 19, 22, 35, and in the originally filed specification, for example on page 7, lines 13-14 and 32-33. No new matter has been added.

Applicants thank the Examiner for the courtesies extended to Applicants' representatives Cynthia Lan and Carol L. Cole on the November 19, 2007 telephonic interview. The substance of the interview is incorporated into the remarks below.

REJECTIONS UNDER § 103

1. Crawford in view of Samson

The Examiner has rejected claims 1-4 and 8-10 under 35 U.S.C. § 103(a) as being unpatentable over GB 2048935 to Crawford (hereinafter "Crawford") in view of U.S. Patent No. 4,605,808 to Samson (hereinafter "Samson") for the reasons set forth in paragraph 2 of the Office Action mailed 3-12-2007 (hereinafter the "3-12-2007 Office Action"). See page 2 of the present Office Action. Applicants respectfully traverse the rejection for at least the following reasons.

Claim 3 has been cancelled, thereby rendering its rejection moot. Moreover, Applicants submit that the presently amended claims recite a viscosity index improver comprising a substantially linear block copolymer, wherein the block copolymer has a

styrene content ranging from about 30 wt. % to about 40 wt. %. However, *Crawford* fails to teach or suggest the presently claimed viscosity index improver.

Instead, *Crawford* teaches lubricating oils containing a polymeric viscosity index improver which can be a tapered or block copolymer of a general "vinyl aromatic monomer" and a conjugated diene. See Abstract. Specifically, *Crawford* teaches that the tapered or block copolymer is suitably a hydrogenated styrene/isoprene block copolymer containing about 75% isoprene and only 25% styrene, which is outside the scope of the presently amended claims. See page 2, lines 51-53. Furthermore, all of the styrene/isoprene copolymers used in Examples 1-30 of *Crawford* contained only 25% styrene. See page 4, line 45 to page 6, line 37. Therefore, the reference fails to teach or suggest all of the claimed elements, e.g., the presently claimed viscosity index improver.

Moreover, *Samson* does not overcome the deficiencies of *Crawford*. *Samson* teaches a process for producing polyisobutene which has at least 70% of its unsaturation in the terminal position. See Abstract. The reference fails to mention a viscosity index improver comprising a substantially linear block copolymer anywhere within its four corners, much less such a block copolymer having a styrene content ranging from about 30 wt. % to about 40 wt. %, as recited in the presently amended claims. Therefore, *Samson* fails to teach or suggest the presently claimed viscosity index improver.

Accordingly, the present invention is not obvious in light of *Crawford* in view of *Samson*. Applicants respectfully request reconsideration and withdrawal of the rejection.

2. Crawford in view of Samson in view of Papay

The Examiner has rejected claims 1, 7, 11, 13, 15-16, and 18-19 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Samson* and further in view of U.S. Patent No. 5,652,201 to Papay (hereinafter "Papay") for the reasons set forth in paragraph 3 of the 3-12-2007 Office Action. See page 2 of the present Office Action. Applicants respectfully traverse the rejection for at least the following reasons.

Claim 19 has been cancelled, thereby rendering its rejection moot. Additionally, *Crawford* in view of *Samson* fail to teach or suggest the present invention for at least the reasons discussed above. Moreover, *Papay* does not overcome the deficiencies of *Crawford* and *Samson* for the same reasons discussed above. In particular, *Papay* fails to teach or suggest the present invention, which comprises a viscosity index improver comprising a substantially linear block copolymer, wherein the block copolymer has a styrene content ranging from about 30 wt. % to about 40 wt. %, as recited in the presently amended claims.

Accordingly, the present invention is not obvious in light of *Crawford* in view of *Samson* and further in view of *Papay*. Applicants respectfully request reconsideration and withdrawal of the rejection.

3. Crawford in view of Papay in view of Samson in view of Lundberg

The Examiner has rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Samson* and further in view of U.S. Patent No. 4,971,711 to Lundberg (hereinafter "Lundberg") for the reasons set forth in paragraph 4 of the 3-12-2007 Office Action. See page 3 of the present Office Action. Applicants respectfully traverse the rejection for at least the following reason.

Claim 6 depends from independent claim 1 and is patentable for the same reasons, as discussed above. Accordingly, the present invention is not obvious in light of *Crawford* in view of *Papay* in view of *Samson* and further in view of *Lundberg*. Applicants respectfully request reconsideration and withdrawal of the rejection.

4. *Crawford* in view of *Samson* and *Papay* in view of *Lambert*

The Examiner has rejected claims 20-23, 26, 28, 30-31, 33-35, 37, 39-40, and 42-44 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Samson* and further in view of U.S. Patent No. 5,888,947 to Lambert (hereinafter "*Lambert*") for the reasons set forth in paragraph 5 of the 3-12-2007 Office Action. *See id.* In particular, it is the Examiner's position that *Crawford* in view of *Papay* does not disclose a method for reducing wear in moving parts with the lubricant composition. However, the Examiner has relied upon *Lambert* for overcoming this deficiency and asserts that "using the lubricant composition of *Crawford* in the method of reducing wear taught by *Lambert* meets claims 20-22." *See* para. 5 of the 3-12-2007 Office Action. Applicants strongly disagree and respectfully traverse the rejection for at least the following reasons.

Claims 22 and 35 have been cancelled, thereby rendering their rejections moot. Moreover, the Examiner has failed to provide sufficient motivation for one skilled in the art to combine the teachings of *Crawford*, *Papay*, and *Samson* with *Lambert* to render the present invention obvious. "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

While the Examiner has argued that *Lambert's* disclosure in col. 1, lines 21-28 and lines 29-33 allegedly provides motivation to use the lubricant composition of *Crawford* in the method of reducing wear taught by *Lambert*, this is simply incorrect. *Lambert* is directed to vegetable-based lubricants for use in internal combustion engines. See Abstract. However, *Lambert* does not teach or suggest a method for reducing wear in moving parts, as the Examiner contends. Rather, the reference simply mentions the general statement that motor oils prevent metal-to-metal contact by forming a film between moving parts. See col. 1, lines 29-30. This blanket statement about how motor oils generally function is certainly not a teaching or suggestion of a method of reducing wear. Furthermore, such a general proposition would not provide sufficient motivation for a skilled person to make the specific combination proposed by the Examiner (e.g., use the lubricant composition of *Crawford* in the method of reducing wear taught by *Lambert*), thereby rendering the present invention obvious. Therefore, because *Lambert* fails to teach or suggest a method for reducing wear in moving parts, the reference also does not overcome the deficiencies of *Crawford* in view of *Papay* in view of *Samson*.

Accordingly, the present invention is not obvious in light of *Crawford* in view of *Samson* in view of *Papay* and further in view of *Lambert*. Applicants respectfully request reconsideration and withdrawal of the rejection.

5. *Crawford* in view of *Samson*, *Papay*, and *Lambert* in view of *Galka*

The Examiner has rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Samson*, *Papay*, and *Lambert* as applied to claims 20-23, and further in view of U.S. Patent No. 6,427,647 to Galka (hereinafter

"Galka") for the reasons set forth in paragraph 6 of the 3-12-2007 Office Action. In particular, the Examiner has relied upon *Galka* for disclosing an internal combustion engine and for teaching that gasoline may be used to power said engine. *See id.* Applicants respectfully traverse the rejection for at least the following reason.

Claim 23 depends from independent claim 20 and is patentable for the same reasons, as discussed above. Specifically, *Galka* fails to teach or suggest a method for reducing wear in moving parts. In fact, *Galka* is silent on the issue of how to reduce wear in moving parts. Accordingly, the present invention is not obvious in light of *Crawford* in view of *Samson*, *Papay*, and *Lambert* and further in view of *Galka*. Applicants respectfully request reconsideration and withdrawal of the rejection.

6. *Crawford* in view of *Samson*, *Papay*, and *Lambert* in view of *Albertson*

The Examiner has rejected claim 24 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Samson*, *Papay*, and *Lambert* in view of U.S. Patent No. 3,653,273 to *Albertson* (hereinafter "*Albertson*") for the reasons set forth in paragraph 7 of the 3-12-2007 Office Action. *See id.* at pages 3-4. In particular, the Examiner has relied upon *Albertson* for disclosing a transmission for a vehicle, namely a bicycle, and for teaching that lubricant is transmitted to the moving parts of the transmission. *See para. 7* of the 3-12-2007 Office Action. Applicants respectfully traverse the rejection for at least the following reason.

Claim 24 depends from independent claim 20 and is patentable for the same reasons, as discussed above. Specifically, *Albertson* fails to teach or suggest a method for reducing wear in moving parts. In fact, *Albertson* is silent on the issue of how to reduce wear in moving parts. Accordingly, the present invention is not obvious in light

of *Crawford* in view of *Samson*, *Papay*, and *Lambert* and further in view of *Albertson*.

Applicants respectfully request reconsideration and withdrawal of the rejection.

7. *Crawford* in view of *Tokumoto*

The Examiner has rejected claims 1-4 and 8-10 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of U.S. Patent No., 6,300,444 to Tokumoto (hereinafter "*Tokumoto*") for the reasons set forth in paragraph 8 of the 3-12-2007 Office Action. See *id.* at page 4. Applicants respectfully traverse the rejection.

For at least the reasons discussed above, *Crawford* fails to teach or suggest the present invention, e.g., the presently claimed viscosity index improver. Moreover, *Tokumoto* does not overcome the deficiencies in *Crawford*. In particular, *Tokumoto* teaches a process for producing butene polymer containing 80 mol % or more of molecules having terminal vinylidene structure and being low in residual organic fluorine content. See Abstract. However, it too fails to mention a viscosity index improver comprising a substantially linear block copolymer anywhere within its four corners, much less such a block copolymer having a styrene content ranging from about 30 wt. % to about 40 wt. %, as presently claimed. Therefore, *Tokumoto* fails to teach or suggest the presently claimed viscosity index improver.

Accordingly, the present invention is not obvious in light of *Crawford* in view of *Tokumoto*. Applicants respectfully request reconsideration and withdrawal of the rejection.

8. *Crawford* in view of *Tokumoto* and further in view of *Papay*

The Examiner has rejected claims 1, 7, 11, 13, 15-16, and 18-19 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Tokumoto* and further in view

of *Papay*. See page 4 of the present Office Action. Applicants respectfully traverse the rejection.

Claim 19 has been cancelled, thereby rendering its rejection moot. Moreover, for the same reasons as discussed above, *Papay* does not overcome the deficiencies of *Crawford* and *Tokumoto*. In particular, the reference does not teach or suggest the present invention, which comprises a viscosity index improver comprising a substantially linear block copolymer anywhere within its four corners, much less a block copolymer having a styrene content ranging from about 30 wt. % to about 40 wt. %.

Accordingly, the present invention is not obvious in light of *Crawford* in view of *Tokumoto* and further in view of *Papay*. Applicants respectfully request reconsideration and withdrawal of the rejection.

9. *Crawford* in view of *Papay* in view of *Tokumoto* and further in view of *Lundberg*

The Examiner has rejected claim 6 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Papay* in view of *Tokumoto* and further in view of *Lundberg* for the reasons set forth in paragraph 10 of the 3-12-2007 Office Action. See *id.* Applicants respectfully traverse the rejection.

Claim 6 depends from independent claim 1 and is patentable for the same reasons, as discussed above. Accordingly, the present invention is not obvious in light of *Crawford* in view of *Papay* in view of *Tokumoto* and further in view of *Lundberg*. Applicants respectfully request reconsideration and withdrawal of the rejection.

10. Crawford in view of Tokumoto in view of Papay and further in view of Lambert

The Examiner has rejected claims 20-23, 26, 28, 30-31, 33-35, 37, 39-40, and 42-44 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Tokumoto* and *Papay* for the reasons set forth in paragraph 11 of the 3-12-2007 Office Action. See *id.* at pages 4-5. Applicants respectfully traverse the rejection.

Claims 22 and 35 have been cancelled, thereby rendering their rejections moot. Moreover, *Lambert* does not overcome the deficiencies of *Crawford*, *Tokumoto*, and *Papay* for the same reasons discussed above. In particular, *Lambert* does not teach or suggest a method for reducing wear in moving parts, as the Examiner contends. Rather, the reference simply makes a blanket statement about how motor oils generally function (see col. 1, lines 29-30), which is certainly not a teaching or suggestion of a method for reducing wear. Furthermore, such a general proposition would not provide sufficient motivation for a skilled person to make the specific combination proposed by the Examiner (e.g., use the lubricant composition of *Crawford* in the method of reducing wear taught by *Lambert*), thereby rendering the present invention obvious. Therefore, because *Lambert* fails to teach or suggest a method for reducing wear in moving parts, the reference also does not overcome the deficiencies of *Crawford* in view of *Tokumoto* in view of *Papay*.

Accordingly, the present invention is not obvious in light of *Crawford* in view of *Tokumoto* in view of *Papay* and further in view of *Lambert*. Applicants respectfully request reconsideration and withdrawal of the rejection.

11. Crawford in view of Tokumoto, Papay, and Lambert in view of Galka

The Examiner has rejected claim 23 under 35 U.S.C. § 103(a) as being unpatentable over *Crawford* in view of *Tokumoto*, *Papay*, and *Lambert* as applied to claims 20-23, and further in view of *Galka* for the reasons set forth in paragraph 12 of the 3-12-2007 Office Action. See *id.* at page 5. Applicants respectfully traverse the rejection.

Claim 23 depends from independent claim 20 and is patentable for the same reasons, as discussed above. Specifically, *Galka* fails to teach or suggest a method for reducing wear in moving parts. In fact, *Galka* is silent on the issue of how to reduce wear in moving parts. Accordingly, the present invention is not obvious in light of *Crawford* in view of *Samson*, *Papay*, and *Lambert* and further in view of *Galka*.

Applicants respectfully request reconsideration and withdrawal of the rejection.

12. Crawford in view of Samson, Papay, and Lambert in view of Albertson

This rejection is the same as that discussed in paragraph 6. Applicants respectfully request reconsideration and withdrawal of the rejection for the same reasons discussed above.

CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge
any additional required fees to our deposit account 50-2961.

Respectfully submitted,

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